ing list of Kansas reptiles and batrachians, which, however, have not been printed. In entomology, he was an authority on tiger beetles (Cicindelidæ) having brought together an excellent collection of them during his travels in various parts of the United States from the Rocky Mountains eastward.

A voracious and consistent reader along his special lines, he compiled from world-wide sources, during his fourteen years of service with the Biological Survey, a vast amount of information, now carded in his own handwriting in the files of the bureau, supplementary to the results of his experimental work. He wrote as freely as he read, setting forth facts on the printed page in a clear, graceful and interesting style. His numerous papers on economic zoology are well known to farmers and agricultural students in every state in the Union.

The personality of Professor Lantz was kindly and endearing. In field and office alike his gentle humor, patience and industry were an inspiration to his associates, to whom he was ever a cheerful friend and valued counsellor.

NED DEARBORN

PROFESSOR LUDVIG SYLOW

THE Nestor of Norwegian mathematicians, Professor Ludvig Sylow, of Christiania, died on September 7, 1918, at the age of eighty-five years. He was known to the mathematicians of every civilized country on account of a well-known theorem which bears his name. In 1876 Frobenius remarked that "as every educated person knows the Pythagorean theorem so does every mathematician speak of Abel's theorem and of Sylow's theorem."

In view of the general interest in the retirement of university professors at sixty-five it may be worth noting that Sylow was appointed professor of mathematics in the University of Chritiania after reaching the age of sixty-five years. While various other noted European mathematicians were called to university positions after they had spent years in teaching in secondary institutions, Sylow was perhaps the only one among them who devoted forty years to teaching in a secondary institution before securing a university chair.

Notwithstanding the advanced age at which Sylow entered the university faculty he is said to have filled the position during twenty years with marked success. The duties of his professorship did not seem to be burdensome to him until the last year of his life when he frequently remarked that he felt tired.

In 1883 he was elected a member of the Academy of Sciences of Göttingen and in 1894 he received an honorary doctor's degree from the University of Copenhagen. His writings related mostly to the theory of substitution groups and to the works of his great countrymen Abel and Lie. He wrote, however, also on the theory of equations and on the complex multiplication of elliptic functions.

G. A. MILLER

SCIENTIFIC EVENTS

THE BRITISH GLASSWARE INDUSTRY

AN article in *Nature* states that the British Chemical Ware Manufacturers' Association, the British Flint Glass Manufacturers' Association, the British Lamp-blown Scientific Glassware Manufacturers' Association and the British Laboratory Ware Association—organizations representing the manufacture and distribution of scientific glassware—have jointly addressed the Inter-Departmental Glass Trades Committee, representing the Board of Trade and the Department of Optical Munitions and Glassware Supply (Ministry of Munitions), setting forth their views as to steps which should be taken to secure the permanent establishment of the trade in Great Britain. They point out that in 1914 the shortage of scientific glassware threatened disaster. Industries such as agriculture, food production of all kinds and the manufacture of armaments, iron and steel, non-ferrous metals, gas, dyes, explosives, leather and oil, also the military and civil medical services and the public services responsible for public health and hygiene, which could not be conducted without efficient scientific control, were in danger. The "master key" to the

maintenance of our position, and to ultimate victory, was for the moment in the hands of our enemies."

During the war the energy and enterprise of manufacturers have enabled them to build up the industry and to supply all the requirements of the country, but having always before them the immediate needs of the country rather than the future of the industry, the position in which they now find themselves is highly unfavorable compared with that of manufacturers in enemy and neutral countries. Since the outbreak of the war the cost of materials has risen threefold and wages have doubled. The cost of experimental work, the payment of excess profits duty and the heavy charges on capital account have made it impossible to accumulate the funds necessary for the proper financing of the industry; and even so far as money has been available, there has been great difficulty in procuring material for the construction of buildings and furnaces suitable in quantity and quality. The labor difficulty and the calling up of all lads of eighteen years of age have seriously hampered the industry.

In view of the importance of the industry, the associations petition the government to prohibit the importation of scientific glassware into the country, subject not only to licenses being granted in the case of articles not manufactured in the country, but also to the control of prices, and later to impose a duty upon imported goods. They also direct attention to the need for financial assistance, and for aid in carrying out those scientific and technical investigations which are essential if the industry is to be established permanently in the country.

THE STUDY OF INDUSTRIAL FATIGUE

WE learn from the *British Medical Journal* that the Industrial Fatigue Research Board has now been completed. The work was begun by the Health of Munition Workers Committee of the Ministry of Munitions, upon which Dr. Leonard Hill and Sir Walter Fletcher served from the time of its appointment in 1915. That committee was dissolved at the beginning of 1918, and issued its final report last May. But the excellence of its work led to the expression of a wish that arrangements should be made for maintaining on a permanent footing an organization for the systematic investigation of the natural laws of industrial fatigue. Their study, though primarily physiological, offers a field of inquiry in which a knowledge both of medicine and the industrial sciences are necessary for full success. The department of Scientific and Industrial Research, and the Medical Research Committee accordingly determined to establish a permanent organization, and to contribute the necessary financial aid in due proportion. The proposal was warmly approved by the home office, which expressed a desire for the immediate establishment of a research organization of the kind indicated. An Industrial Fatigue Research Board was therefore established a short time ago and has now been completed. It will continue the organizing functions of the two bodies and the investigations already in progress. The Board is instructed "to consider and investigate the relations of hours of labor and of other conditions of employment, including methds of work, to the production of fatigue, having regard both to industrial efficiency and to the preservation of health among the workers." The duty of the board will be to initiate, organize and promote by research, grants, or otherwise, investigations in different industries, with a view to finding the most favorable hours of labor, spells of work, rest pauses, and other conditions applicable to the various processes according to the nature of the work and its demands on the worker. For these investigations the board looks forward to receiving the help of employers and workmen in the industries which are studied, and in appropriate cases representatives of both will be invited to serve as temporary members of the board. The chairman of the board is Dr. C. S. Sherrington, F.R.S., professor of physiology in the University of Oxford, and the members are Dr. E. L. Collis (Director of Welfare and Health, Ministry of Munitions),